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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Mohamed Alam  
SERIAL NO.: 10/046,061  
FILED: January 11, 2002  
EXAMINER: Corbin, Arthur L.  
GROUP ART UNIT: 1761  
MAILING DATE OF ACTION: September 8, 2006  
TITLE: COMPOSITION AND PROCESS FOR  
CLEANING AND DISINFECTING FOOD  
PRODUCTS

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SECTION 132 DECLARATION

I, John Bonnes, hereby declare:

I am a chemist with more than 15 years experience in chemical laboratory analysis of food for Ameritech Laboratories of 128-17 20<sup>th</sup> Avenue, College Point, NY 11356.

I have performed laboratory work for Mohamed Alam for over 10 years, analyzing and testing his "Clean-a-Meal" product.

I tested the Clean-a-Meal product which is the subject of his patent application on various meats and foods, upon which the present regular examinable patent is based.

I also tested the Cooking of India referenced product cited by the Patent Office Examiner.

This 132 Declaration is in response to paragraph 6 of the Patent Examiner's Office Action of September 7, 2006, where it was stated that my prior Declaration noted the components and amounts of the Cooking of India reference, as opposed to the Clean-A-Meal product, which is the subject matter of the present invention.

The Clean-A-Meal product tested is set forth in the specification of the Applicant Mohamed Alam's patent application, as page 8, lines 4 through 16, where the ingredients

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of Clean-A-Meal are listed by volume, namely, in fluid ounces for the fluid components and by teaspoons for the solid components.

### COMPARISON OF CLEAN-A-MEAL AND COOKING OF INDIA BY PERCENTAGE VOLUME OF TOTAL COMPOSITIONS

The following is a comparison of the formulas of Clean-A-Meal and Cooking of India by percentage of ingredients of the total composition, used in the study comparing the effectiveness of the two formulas:

Ingredient	C-A-M %	C-O-I %
Water	49.2	0.0
White Vinegar, 5%	7.8	48.4
Lemon Juice	21.1	36.3
Lime Juice	21.1	0.0
Salt	0.4	12.3
Turmeric	0.4	3.1
Total	100.0	100.0

Both formulas used in the study were prepared with the percentages indicated. The COI formula has a much higher solids content and a higher acid content while at the same time has a lower water content.

### CLEAN-A-MEAL VS. COOKING OF INDIA INGREDIENTS

The following is a comparison of the formulas of Clean-A-Meal and Cooking of India by actual volume of ingredients used in the study comparing the effectiveness of the two formulas:

As noted in the specification on page 8, lines 4 through 16, the following ingredients for Clean-a-Meal (C.A.M.) were mixed. As noted on page 43 of the Cooking

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of India reference, the following ingredients for Cooking of India (C.O.I.) were mixed. (These ingredients of Cooking of India (C.O.I.) only included the four common ingredients common to Clean-A-Meal (C.A.M.), namely lemon juice, cider vinegar, turmeric and salt.) The respective volumes of Clean-A-Meal (C.A.M.) and Cooking of India (C.O.I.) are listed as follows:

Ingredient	<u>C-A-M</u>	<u>C-O-I</u>
Water	64 fluid oz.	0.0
White Vinegar, 5%	10 fluid oz.	2.7 fluid oz. (1/3 cup)
Lemon Juice	27 fluid oz.	2.0 fluid oz. (1/4 cup)
Lime Juice	27 fluid oz.	0.0

Admixed in the above liquid mixtures were the following solid ingredients by volume:

Salt	3 teaspoons	4.0 teaspoons
Turmeric	3 teaspoons	1.0 teaspoon
Total	100.0	100.0

It is further noted that the present claimed subject matter of CLEAN-A-MEAL does not require cooking to kill bacteria, whereas, the COOKING OF INDIA is inherently a cooked product, which causes oxidation to enhance bactericidal properties, a characteristic not required of CLEAN-A-MEAL.

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### COMPARISON OF BACTERICIDE EFFECTIVENESS OF CLEAN-A-MEAL WITH COOKING OF INDIA :

As noted in my prior 132 Declarations, the Clean-A-Meal was much more effective than the Cooking of India reference as a bactericide.

For example, with respect to fish with a high level of bacteria, the average reduction in E. Coli bacteria on salmon fish treated with Clean-A-Meal was 99.2 %. In contrast, the average reduction in E. Coli bacteria on salmon fish treated with Cooking of India was 42.8%.

Furthermore, the average reduction in Listeria bacteria on salmon fish treated with Clean-A-Meal was 97.8 %. In contrast, the average reduction in Listeria bacteria on salmon fish treated with Cooking of India was 47.5%.

Moreover, the average reduction in Salmonella bacteria on salmon fish treated with Clean-A-Meal was 96.7 %. In contrast, the average reduction in Listeria bacteria on salmon fish treated with Cooking of India was 49.5%.

Additionally, the average reduction in Staphylococcus bacteria on salmon fish treated with Clean-A-Meal was 97.7 %. In contrast, the average reduction in Staphylococcus bacteria on salmon fish treated with Cooking of India was 58.5 %.

Finally, the average reduction in Clostridium bacteria on salmon fish treated with Clean-A-Meal was 98.0 %. In contrast, the average reduction in Clostridium bacteria on salmon fish treated with Cooking of India was 58.1 %.

With respect to fish with a low level of bacteria, the average reduction in E. Coli bacteria on salmon fish treated with Clean-A-Meal was 98.5 %. In contrast, the average reduction in E. Coli bacteria on salmon fish treated with Cooking of India was 46.9%.

Furthermore, the average reduction in Listeria bacteria on salmon fish treated with Clean-A-Meal was 97.5 %. In contrast, the average reduction in Listeria bacteria on salmon fish treated with Cooking of India was 40.0%.

Moreover, the average reduction in Salmonella bacteria on salmon fish treated with Clean-A-Meal was 98.1 %. In contrast, the average reduction in Listeria bacteria on salmon fish treated with Cooking of India was 45.7%.

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Additionally, the average reduction in *Staphylococcus* bacteria on salmon fish treated with Clean-A-Meal was 98.3 %. In contrast, the average reduction in *Staphylococcus* bacteria on salmon fish treated with Cooking of India was 58.0 %.

Finally, the average reduction in *Clostridium* bacteria on salmon fish treated with Clean-A-Meal was 97.4 %. In contrast, the average reduction in *Clostridium* bacteria on salmon fish treated with Cooking of India was 44.4 %.

Similar results were found with respect to high and low levels of bacteria on beef and chicken, with average reduction ranges being from 96.6% to 99.3% for Clean-A-Meal and from 41.1% to 62.2% for the Cooking of India reference.

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### REMARKS

The reason for the lower effectiveness of the COI formula compared to the CAM formula cannot be assessed based on the results alone. However, several possible reasons can be considered:

1. The high solids and acid and lower water content of the COI formula could cause the microorganisms to go into a protective mode (possibly by forming spores or some other protection mechanism) when exposed to the mix. When the samples were diluted and plated for microbiological count the protective mode was reversed and they (or their spores) grew in the microbiological media. The CAM formula with its higher water content was able to utilize the killing power of the ingredients much more successfully.

2. D-Limonene is a compound that has known antimicrobial properties. The CAM formula has higher d-Limonene content due to a higher total amount of citrus juice and the inclusion of lime juice which has a higher d-Limonene content than lemon juice. The effectiveness of d-Limonene as an antimicrobial agent is concentration related. Also the higher water and lower salt content of CAM may make the d-Limonene more effective.

Irregardless of any results obtained with the COI ingredients, the results are pretty much meaningless when compared to the CAM. The COI ingredients are just that, ingredients which are part of a larger recipe and comprise only 10 to 15% of that recipe. Their use in the recipe is to impart or enhance the flavor of the final food preparation and not to exert some kind of microbiological control. Any microbiological control of the food would be achieved by the proper cooking of the food. Some or all of the COI ingredients are used in many food recipes, not only Indian foods but also cuisines from all over the world. As an experienced microbiologist, I have never seen any of these or any other ingredients to be incorporated into a recipe during the final preparation of the

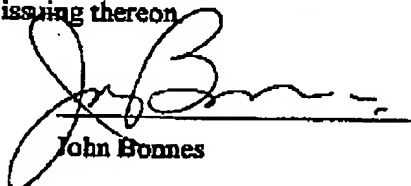
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food for the express purpose of microbiological control. The CAM formula was developed for just that purpose.

As far as the effects of heating (cooking) on CAM or COI, no studies have been done and there is no data to show. This is because as far as CAM is concerned, none is needed. CAM has always been intended to be used on foods or food surfaces prior to food preparation to reduce or eliminate the microbiological population on the food thereby making the food safer. It has been intended to offset the possibility or even probability that foods will have an inordinately large or resistant population prior to preparation or that the food preparation in itself does not adequately reduce or destroy the microbiological population.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Dated: February 6, 2007



John Bonnes

Appn. Serial No. 10/046,061

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**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited by fax to 571-273-8300 on the dated indicated below.

Date: February 7, 2007

  
Alfred M. Walker